United States Patent [19]

Blum

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[54] **SEPARATE SURFACE, COMMON DEPTH POINT STACK**

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[51] **Int. Cl.²**..... **G01V 1/36**

[58] **Field of Search** ..... 340/15.5 CP, 15.5 MC, 340/15.5 DS, 7, 15.5 TD

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[57] **ABSTRACT**

Near surface anomalies in common depth point seismic surveying are identified by divergence between two records which are obtained by (1) wherein generating a set of common depth point traces with full or partial fold coverage by combining traces containing energy reflected from common depth points and detected in all or a first fraction of the surface detector spread; and (2) generating a further set of common depth point traces with partial fold coverage by combining traces containing energy reflected from the same common depth points but detected in a second fraction of the surface detector spread. The first and second fractions will not be common. Similarly, this technique is used in verifying the accuracy of static corrections applied in seismic processing since erroneous corrections give rise to anomalies which can be identified.

24 Claims, 5 Drawing Figures